[redacted]

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WISCONSIN

PROMEGA CORPORATION,

Plaintiff,

and

MAX-PLANCK-GESELLSCHAFT zur FORDERUNG der WISSENSCHAFTEN E.V.,

Involuntary Plaintiff,

v.

LIFE TECHNOLOGIES CORPORATION, INVITROGEN IP HOLDINGS, INC., and APPLIED BIOSYSTEMS, LLC,

Defendants.

Case No. 10-cv-281-bbc

MEMORANDUM IN SUPPORT OF DEFENDANTS' MOTION TO PRECLUDE CERTAIN TESTIMONY OF DR. JOHN BEYER

[redacted]

Defendants Life Technologies Corporation, Applied Biosystems, LLC, ("AB") and Invitrogen IP Holdings, Inc., (collectively, "Life"), by and through counsel, respectfully submit this Memorandum in Support of their Motion to Preclude Testimony of Dr. John C. Beyer ("Dr. Beyer").

I. INTRODUCTION

Dr. Beyer has no prior experience with the science, or business, or uses of STR kits. In spite of this, he has submitted an expert report with proposed opinions in exactly those areas. On top of his lack of qualifications in those areas, he employs an unreliable methodology to attempt to calculate an "estimate" of plaintiff Promega Corporation's damages – an "estimate" that he himself admits is only a "proxy" for the actual damages. Not surprisingly, his resulting opinions would not assist the jury in understanding this case and should be excluded.

Most notably, Dr. Beyer acknowledges that the predicate for damages is a determination of which customer uses of AB's kits would be in fields that are outside the scope of the 2006 Cross-License as determined by the Court's November 29, 2011 Opinion and Order. He also acknowledges that he does not have a scientific background; accordingly, he is not qualified to make independent determinations regarding the use of STR kits. However, he goes on to proffer an opinion regarding how almost 2,000,000 AB customers (many of whom are foreign entities) have used STR kits that is based upon no more than the customer's name. Implicitly recognizing the unreliability of this methodology, he proffers three alternative damages calculations, with a range of almost $90,000,000. None of these calculations are reliably grounded, and Dr. Beyer has admitted that his only "check" on his work was some internet searches on a few customers.

Similarly, Dr. Beyer has offered "expert" opinions on such far-reaching topics as what customer uses are "forensic" and thus are within the scope of the 2006 Cross-License as interpreted by the Court, equivalent products, and non-infringing substitutes. Dr. Beyer does not

possess an appropriate background in science or contract interpretation to make these determinations.

Under the standards set forth in *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993) and Rule 702 of the Federal Rules of Evidence, the Court "must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable." *Daubert*, 509 U.S. at 589. However, as set forth herein, Dr. Beyer's testimony and the opinions proffered therein, as disclosed in his October 21, 2011 Expert Report and his December 15, 2011 Supplemental Expert Report, can satisfy neither requirement. Accordingly, such testimony is inadmissible and, as such, Plaintiff Promega Corporation ("Promega") cannot rely upon it at trial. Life thus respectfully moves this Court for an order excluding Dr. Beyer's testimony.

II. STATEMENT OF THE FACTS

1. This is a lawsuit for patent infringement brought by Promega against Life Technologies Corporation, Invitrogen IP Holdings, Inc., and Applied Biosystems, LLC. Dkt. No. 142 (Second Am. Compl.) at ¶¶ 170-199. The asserted patents are referred to as the "Promega Patents."

2. Promega licensed the Promega Patents to AB in specified fields in a cross license that was entered into in 2006 ("the 2006 Cross-License").

3. The Court has ruled that uses of the accused products for applications of "chimerism in the context of bone marrow transplant monitoring, cell line authentication, classifying molar specimens and determinations of fetal sex" are not within the scope of the 2006 Cross-License. Dkt. No. 345 (November 29, 2011 Opinion and Order) at 23-25. The Court thus granted "plaintiff's motion for summary judgment with respect to direct infringement of the asserted apparatus claims in the '235, '598, '660, and '771 patents" as to sales of AmpFℓSTR® Kits made by Applied Biosystems LLC ("AB") into the fields of use listed above. *Id.* at 25.

A. BACKGROUND OF THE TECHNOLOGY AT ISSUE

4. The AmpFℓSTR® Kits can be used in methods for amplifying and detecting DNA sequences called "short tandem repeats" ("STRs"). DNA provides the blueprints for life by dictating the structure, function, and appearance of all of the cells and tissues in an organism. A nucleotide is the simplest unit of a DNA molecule. Generally speaking, DNA is comprised of four different nucleotides, often referred to by the shorthand "A," "C," "G," and "T," linked together in a long chain. It is the sequence of these nucleotides in a particular DNA chain that differentiates the DNA of different organisms, and even of different individual organisms.

5. STR sequences are regions of DNA that contain repeats of particular nucleotide sequences. For example, the sequence A-T-T may be repeated a number of times in a row (*i.e.*, in tandem) to create a sequence such as A-T-T-A-T-T-A-T-T-A-T-T. The number of times the short sequence repeats in an STR can vary widely in the genomes of different individuals. For example, one individual may repeat a particular short sequence 11 times, and another individual may repeat it 14 times. There are typically many separate STRs in an organism's DNA that could be used to compare the DNA of different individuals. By looking at multiple STRs, individuals can be distinguished from one another. The ability of STR sequences to compare DNA from different individuals and to distinguish between them makes STRs a good tool for determining parentage or paternity, authenticating cell lines, and determining chimerism in bone marrow transplant monitoring, among other uses.

B. PROMEGA'S PROFFERED EXPERT REPORTS

6. In an effort to prove damages for any AmpFℓSTR® Kits sold without authorization by AB and used by customers in fields that the Court has ruled are outside the scope of the 2006 Cross-License, Promega has filed reports under Federal Rule of Civil Procedure 26(a)(2)(B) by two alleged experts. These reports attempt to support an alleged

damages sales base. Specifically, they attempt to identify how many AmpFℓSTR® kits were used by AB's customers in fields that the Court has determined to be outside the scope of the parties' 2006 Cross-License (*i.e.*, chimerism in the context of bone marrow transplant monitoring, cell line authentication, classifying molar specimens, and determinations of fetal sex).

7. Promega's first purported expert on damages is Promega's own Chief Technology Officer, Dr. Randall Dimond, who filed his report on October 21, 2011. (Dkt. No. 316) ("Dimond Report").

8. Promega's second purported expert is Dr. John Beyer, who filed a first report on October 21, 2011, and a supplemental report on December 15, 2011. (Dkt. Nos. 315 and 352, respectively) ("Beyer Report" and "Supp. Beyer Report").

9. Neither Dr. Beyer's report, his supplemental report, nor his submitted CV list any knowledge, skill, experience, training, or education in any biological field. *See* Beyer Report,. Beyer Report, App. A and Supp. Beyer Report. Dr. Beyer volunteered during deposition [redacted] Declaration of Francis M. Wikstrom ("Wikstrom Decl."), Exh. A (Jan. 11, 2012 Beyer Depo. Tr.) at [redacted]. That alone shows that he is not qualified as an expert for any scientific or technological issues in this case. But he has further shown that he is utterly lacking in any familiarity with the specific subfield of technology in this case. He testified that [redacted] *Id.*, at [redacted]. He further admitted that [redacted] *Id.* at [redacted]. He specifically conceded

that [redacted] *Id.* at [redacted]

C. THE DIMOND REPORT

10. Dr. Dimond opined, among other things, that the likely use of human STR kits, such as forensic, paternity testing, or clinical diagnostics, can accurately be determined merely based on a purchaser's "institutional type." Dimond Report at ¶¶ 25-29 and Exhibit E. Exhibit E of Dr. Dimond's opinion consists of a list of various types of institution, such as "university," "private hospital," "government," etc., with Dr. Dimond's corresponding opinion as to whether each of those institutions would or would not be likely to engage in uses in various fields.

11. Dr. Dimond doesn't know the identity of AB's customers or their uses. *See* St. of Facts, ¶ 12, *infra*. Dr. Dimond only speculates as to his expectations about how various entity types might use kits. *Id.*

12. Instead of considering AB's customers' uses, Dr. Dimond instead based his opinion, in part, on Promega's customers' uses. Dimond Report at 25-26). Moreover, despite the heading "Facts supporting the Opinion," Dr. Dimond does not identify any institution or any institution's ***actual*** use of STR kits. *Id.* at ¶¶ 26-29. Instead, Dr. Dimond speculates regarding institutions' uses, and, for each institution-type listed in the report, states what use he believes "would be expected" for that institution. *Id.* For example, Dr. Dimond states that universities "***would be expected*** to use human STR kits mainly for Research and Cell Authentication applications." *Id.* at 26 (emphasis added).

D. DR. BEYER'S REPORT AND QUALIFICATIONS

13. Dr. Beyer offered opinions relating to a variety of issues, including (i) the number of AB's AmpFℓSTR® Amplification Kits that were used by third party customers in fields outside of the scope of the 2006 Cross-License as determined by the Court; and (ii) the absence

of acceptable non-infringing alternatives for the third party customer uses that were in fields outside of the Court-determined scope of the 2006 Cross-License. Dr. Beyer based some of his opinions on certain assumptions taken from Dr. Dimond's report. In particular, Dr. Beyer formulated an opinion regarding the proportion of customer uses that were in fields outside of scope of the 2006 Cross-License in part by relying on Dr. Dimond's assertions that "institutional type" may serve as a proxy for a customer's use of AmpFℓSTR® Kits that it purchased from Life. Beyer Report at ¶ 29. However, Dr. Beyer extended his own opinions beyond Dr. Dimond's general opinions that "institutional type" may generally be proxy for determining customer use. Specifically, unlike Dr. Dimond, Dr. Beyer assigned specific percentages of different uses that he asserts represent the proper usage by various institution types. *Id.* at Appx. C.

14. Nowhere in either of Dr. Beyer's expert reports, his attached CV, or his deposition testimony did Dr. Beyer indicate that he has any knowledge, skill, experience, training, or education whatsoever regarding molecular biology, STRs or STR-based products, chimerism in the context of bone marrow transplant monitoring, cell line authentication, classifying molar specimens, determinations of fetal sex, forensic science, paternity determination, how and why various businesses and other entities use STRs and STR-based products, licensing, contract interpretation, patent infringement, federal and state regulation of diagnostic products, or general law or legal principles. Instead, he admitted that [redacted] Wikstrom Decl., Ex. A (Beyer Depo. Tr.) at [redacted].

15. In addition to his lack of experience in the business applications of STRs and STR-based products, Dr. Beyer recognized that [redacted] *Id.* at [redacted].

16. Dr. Beyer further admitted [redacted]. *Id.* at [redacted]. He even explicitly recognized that [redacted] *Id.* at [redacted].

E. DR. BEYER'S ESTIMATE OF THE "QUANTUM OF AB'S INFRINGING SALES"

17. Dr. Beyer's conclusions included calculations of both lost profits and reasonable royalty damages. Dr. Beyer based his calculations of both lost profits and reasonable royalty on his "[e]stimate [of] ABI'S infringing sales of STR kits for the period from July 1, 2006 through June 30, 2011," which he also refers to as the "quantum of AB's infringing sales." Dkt. No. 315 (Beyer Report) at ¶¶ 27, 50-51. [1]

18. Dr. Beyer offered three different possible estimates of the "quantum of AB'S infringing sales," which he calls an "upper bound," a "lower bound," and an "alternate estimate." Beyer Report, ¶¶ 30, 45-46; Beyer Report, App. C.

19. Each of his estimates relied on Dr. Beyer's interpretation of Life's electronic sales database. Beyer Report, ¶ 31. Life's electronic sales database, as Dr. Beyer recognized, includes information about transactions including date, customer identifiers, and quantity sold,

[1] Throughout his report, Dr. Beyer refers to "infringing sales." Based on the context of the usage in the report, Dr. Beyer appears to use this phrase to refer to uses by AB's customers in fields that are outside the scope of the 2006 Cross-License as determined by the Court's November 29, 2011 Opinion and Order (Dkt. No. 345).

but "contains no information about the use or application of AB's STR kit and does not distinguish unit sales by end use (it is 'application agnostic')."[2] *Id.* at ¶ 28.

20. For each estimate, he first opined regarding the type of institution each customer is, based solely on either a customer's name or on an "application agnostic" database. *See id.* Specifically, calculation of each of Dr. Beyer's upper and lower bound estimates both begin by inferring an "institution type" based on each customer's name. *Id* at ¶ 29. [redacted] Wikstrom Decl., Ex. A (Beyer Dep. Tr.) at [redacted]. However, if he could not find what he considered to be an answer there, he engaged in unspecified "informed assumptions." Beyer Report, ¶ 29.

21. Second, after Dr. Beyer picked institution types for different customers, he then offered his opinion regarding the percentage of STR kit use for each of his assigned institution types in fields outside of the scope of the 2006 Cross-License. [redacted] Wikstrom Decl., Ex. A (Beyer Dep. Tr.) at [redacted].

22. Generally, Dr. Beyer's "upper bound" "estimate" is based on an opinion that for all institutions that do not meet his assumed criteria, 100% of the customer's use would be in fields that are outside the scope of the licensed fields. *See* Beyer Report, App. C. His "lower bound" "estimate," is based on an estimate that 85% of uses by non-U.S. universities, 95% of uses by U.S. universities, and 95% of uses by medical, cancer, or diagnostic research centers

[2] Neither Dr. Beyer nor Promega argue that defendants had any obligation to keep any additional information in its records. [redacted] Wikstrom Decl., Exh. B (Dimond Dec. 8, 2011 Deposition., "Dimond Dep. Tr.")) at [redacted].

would be in fields that are outside the scope of the license. (*Id.*.) His alternate estimate is based on the same assumptions as the "lower bound." Beyer Report, ¶¶ 45-47.[3]

23. Dr. Beyer's only inputs for the percentages of customer uses in fields that are outside the scope of the 2006 Cross-License were the generalizations of Dr. Dimond and conversations between Dr. Beyer's staff and Life employees. *Id.* at ¶ 29, App. C. But he did not take what either Dr. Dimond or Life employees said as a premise. *Id.* at ¶ 29. Rather, he indicated that those conversations were only a factor in formulating his own opinions. *Id.*

24. Dr. Beyer's estimate of what he referred to as "infringing sales" was founded entirely on an arbitrary and unsupported determination of "the field of use or application of defendants' products" that were sold by AB during a certain time period. *Id.* at ¶ 28; *see also* Supp. Beyer Report, ¶ 8 (""Central to the estimate of lost profits [and reasonably royalty base] is distinguishing defendants' sales by infringing vs. non-infringing uses.").)

25. In particular, Dr. Beyer stated that he relied on "defendant's electronic sales database" to quantify the sales that he opines were used by AB's customers in fields outside the scope of the 2006 Cross-License, but then he also conceded that "[w]hile this database contains a wealth of information, it ***contains no information about the use or application*** of AB's STR kits and ***does not distinguish unit sales by end use (it is 'application agnostic')***." (Beyer Report, ¶¶ 27 (emphasis added). Dr. Beyer explicitly admitted that [redacted] (Wikstrom Decl.,

[3] While Dr. Beyer states that [redacted] Supp. Beyer Report, ¶ [redacted]

Ex. A (Beyer Dep. Tr.) at [redacted], but also admitted that [redacted] (Beyer Supp. Report, ¶ [redacted] (emphasis added)).

26. Nothing in Dr. Beyer's report states or suggests that he (or Promega) did any independent research or investigation regarding the uses to which AB's customers actually put any of the AmpFℓSTR® Kits. Instead, Dr. Beyer chose to rely on the electronic sales database that he readily concedes "contains no information about the use or application" of the kits. Beyer Report, ¶ 28.

27. He asserted that he "was compelled to rely on institutional fields of likely use, such as a hospital (human clinical applications) or law enforcement agency (human forensic applications)." *Id.*, ¶ 29. But he offered no explanation for why was "compelled" to rely on that database to the exclusion of other possible evidence and information sources, or why the mere fact that he felt "compelled" to use this database would make his guesses about this database any more accurate than if he had not felt so compelled. *Id.* He also does not explain how he selected which "institutional fields of likely use" to consider as outside the scope of the 2006 Cross-License. *Id.*

28. Dr. Beyer further stated that he "clarified" his selected institutional fields of likely use "by testimony from and interviews with certain Life Tech employees" – but did not describe or identify what testimony or interviews he is referring to or what the resulting institutional fields of likely use were. *Id.* Then he stated that where the unidentified testimony by Life employees "suggested some institutions engaged in multiple applications using STR kits," he made "informed assumptions of the proportion of infringing and non-infringing applications." *Id.* But he never explained the basis of his "informed assumptions," his qualifications for making assumptions regarding use of STR kits, or how his "informed assumptions" differ from

unsupported speculation. Finally, he indicated that he "considered the opinions of Dr. Dimond in section E of his Expert Report" regarding the proportion of customer use within a field, but gave no indication of how he turned the opinions of Dr. Dimond into the "methodology" he employed. *Id.*

1. Dr. Beyer's Upper Bound Estimate.

29. Dr. Beyer created a number he called an "upper bound" by taking ***all*** STR kit customers in Life's database, and then excluding several poorly defined categories of customers, who he alleged "are identified as using STR kits for only non-infringing uses." Beyer Report, App. C. But he did not disclose his methodology for identifying customers to exclude. He stated only that [redacted] *Id.*; Wikstrom Decl., Exh. A (Beyer Dep.) at [redacted] But, as Dr. Beyer admitted, some customer uses of AmpFℓSTR® Kits are within the scope of the 2006 Cross-License as determined by this Court's November 29, 2011 Opinion and Order. *See* Beyer Report, ¶28. Dr. Beyer further admitted that his upper bound estimate [redacted] Id. at ¶ 30; Wikstrom Decl., Exh. A (Beyer Dep. Tr.) at [redacted] In addition, Dr. Beyer did not fully or adequately describe his method for calculating the upper bound. For example, he excluded customers with "names containing character strings ***like*** police, forensics, crime," but provided neither the names of excluded customers, nor the methodology he used to determine if their names were "like" his identified words. Beyer Report, App. C (emphasis added). Likewise, he explained that he excluded "customers that are government entities, ***other than those that might*** be engaging in infringing uses (such as government hospitals, laboratories,

public universities, and departments of health)," but gave no explanation of his methodology for determining if a customer is a government entity, or how he determined which types of government entities "might be engaging in infringing uses." *Id.* (emphasis added). Dr. Beyer also excluded "[c]ustomers common to Promega and AB who are identified in Promega's data with" a particular type of identification, but did not identify who these customers are. *Id.*

30. Dr. Beyer attempted his exclusion by [redacted] *Id.*; Wikstrom Decl., Exh. A (Beyer Dep. Tr.) at [redacted]. Dr. Beyer did not disclose his methodology used to find these names in his report, and he testified in deposition that [redacted] Wikstrom Decl., Exh. A (Beyer Dep. Tr.) at [redacted]

31. Next, [redacted] *Id.* at [redacted] He then [redacted] *Id.* He was [redacted] *Id.* at [redacted]

[redacted] *Id.* at [redacted]

32. [redacted]

33. After [redacted], all of the sales for any customer who had not been excluded were included in the "upper bound" estimate. St. of Facts, ¶ 29. He explicitly testified that [redacted] Wikstrom Decl., Ex. A (Beyer Dep.) at [redacted]. He also admitted that [redacted] *Id.*, at [redacted]

34. The methodology Dr. Beyer used to derive his "upper bound" is based on speculation, not an established scientific method. [redacted]

2. Dr. Beyer's Lower Bound Estimate.

35. Dr. Beyer's calculation of the "lower bound" similarly included two steps. [redacted] *Id.* at [redacted] (emphasis added). Specifically, he sought to identify "hospitals, universities, and . . . medical, cancer, or diagnostic research centers." St. of Facts, ¶ 19, *supra*. He provided no information about how he decided a customer was a "medical, cancer, or diagnostic research center." *Id.* He relied mostly on the "Customer Segment Name," in the electronic sales database with no explanation of why the

Customer Segment Name information correlates at all with customer uses (much less that it necessarily or reliably correlates) or otherwise how and why his reliance on the Customer Segment Name was an acceptable or reliable methodology. He did this through [redacted] Wikstrom Decl., Ex. A (Beyer Dep.) at [redacted] *Id.* at [redacted]

36. In his second step, he assigned arbitrary percentages of purchases in various categories that would be in fields that are outside the scope of the 2006 Cross-License (e.g., either 85% or 95%). Beyer Report, App. C. He did not explain how or why these percentages accurately reflect the actual customer uses or are otherwise reliable. He gave no methodology for how he derived these numbers, which are not provided in the Dimond Report and were instead entirely a creation of Dr. Beyer's. St. of Facts, ¶ 28; *see also* Dimond Report at Section E. Instead, he only stated that he based these numbers on the Dimond report, on discussions his staff had with Life employees, and on his "informed assumptions." *Id.* He specifically testified that [redacted] Wikstrom Decl., Ex. A (Beyer Dep.) at [redacted]

37. Dr. Beyer subsequently modified this "lower bound" number in his supplemental report. [redacted]

[redacted] Beyer Supp. Report. However, [redacted] (discussed *infra*).

3. Dr. Beyer's Alternate Estimate.

38. To calculate his "alternate" estimate, Dr. Beyer took the quantity he calculated as the "lower bound," with all of its inherent flaws, and added a second estimated number to it. Beyer Report, ¶ 46; *see also* Wikstrom Decl., Ex. A (Beyer Dep.) at [redacted]. For this second value, [redacted]. Beyer Supp. Rep., ¶ [redacted] However, as Dr. Beyer himself recognized elsewhere in his report, [redacted] Beyer Report at [redacted]

39. Finally, Dr. Beyer claimed to exclude "those customers which are clearly only for forensic use, are already included in the lower bound, or are dealers/wholesales," but provides no information regarding his methodology, for determining whether a use is "clearly for forensics" or whether a customer is a dealer/wholesaler, why his choices of customers to exclude correlate with the actual use by a customer or the identity of a customer as a dealer/wholesaler, or how his methodology accurately reflects the actual customer uses and identities or are otherwise reliable. *Id.* at ¶ 46.

F. DR. BEYER'S OPINIONS REGARDING THE SCOPE OF THE 2006 CROSS-LICENSE

40. Dr. Beyer admitted that he took on the task of making "informed assumptions of the proportion of infringing and non-infringing applications," based on his opinion of whether

different uses fell within the scope of the 2006 Cross-License. *Id.* at ¶ 29. For example, Dr. Beyer testified that [redacted] Wikstrom Decl., Ex. A (Beyer Dep. Tr.) at [redacted].

41. Dr. Beyer further testified that through the 2006 Cross-License, [redacted] *Id.* at [redacted] He also testified that [redacted] *Id.* at [redacted]

G. DR. BEYER'S OPINIONS REGARDING PRODUCT EQUIVALANCE

42. Dr. Beyer also offered opinions regarding the equivalence of STR kits sold by AB and Promega. For example, he asserted opinions such as "Promega manufactured, marketed and sold STR kits that are comparable to AB's infringing products," and "Promega's PowerPlex 16 system is the product most commonly used as the Promega equivalent due to its popularity and the continuity of its availability during the infringement period." Beyer Report, ¶ 32. Other than reliance on Dr. Dimond's report, he does not provide any explanation of how he determined whether a kit was "comparable" to an AB AmpFℓSTR® Kit or otherwise "equivalent." For example, Dr. Beyer does not discuss whether there are technical options for these applications other than STR or whether there are STR solutions for these applications which do not fall under the scope of the Promega Patents, much less analyze how these questions might differ for the different applications.

43. While Dr. Beyer [redacted] Wikstrom Decl., Ex. A (Beyer Dep.) at [redacted] In fact, Dr. Beyer's opinion regarding [redacted] Wikstrom Decl., Ex. B (Dimond Dep.) at [redacted] Dr. Beyer asserted that, with a few exceptions, Promega's PowerPlex 16 product was the appropriate equivalent product that Promega would have sold but for AB's unauthorized sales of the AmpFℓSTR® Kits to customers who ultimately used the product in fields outside the scope of the 2006 Cross-License as determined by the Court. *Id.* Dr. Beyer offers no explanation for this discrepancy. Beyer Report, ¶ 32.

44. Moreover, Dr. Beyer's analysis is based entirely on numbers suggesting technical interchangeability provided in the Dimond report. He did not mention any factors other than scientific ones. (*See id.*) For example, he ignored any regulatory or license limitations that could impact that interchangeability of the products. But Dr. Beyer's own testimony shows this is unrealistic. [redacted] Wikstrom Decl., Exh. A (Beyer Dep. Tr.) [redacted]

H. DR. BEYER'S OPINIONS REGARDING NON-INFRINGING ALTERNATIVES

45. Dr. Beyer did not discuss whether or not there were acceptable non-infringing alternatives available from Life and instead based his conclusion that there were no non-infringing alternatives on Promega's alleged reluctance to license the patents at issue. Beyer

Report, ¶ 23-24. Similarly, in his deposition Dr. Beyer [redacted] Wikstrom Decl., Ex. A (Beyer Dep.) at [redacted].

46. Instead, he merely asserted that "there would have been no acceptable non-infringing substitutes for Promega's products," that "Promega controls several patents essential for non-infringing production and sale of STR kits," and that "[i]n the human clinical research and human diagnostics applications, there were no other non-infringing suppliers of STR kits besides Promega." Beyer Report, ¶ 23.

I. DR. BEYER'S OPINIONS REGARDING MANUFACTURING CAPACITY AND INJUNCTION

47. Dr. Beyer also opined that Promega had the manufacturing capacity to triple its output of STR kits. *Id.*, ¶ 21.

48. Likewise, Dr. Beyer offered an opinion regarding demand for Promega's products and entry of an injunction. *Id.*, ¶¶ 17, 48-49.

J. DR. BEYER'S SUPPLEMENTAL REPORT

49. Dr. Beyer subsequently modified some of his initial opinions in a December 15, 2011 Supplemental Report. However, he admitted that [redacted] Supp. Beyer Report at [redacted] His admission is not surprising because [redacted] *Id.*, ¶ [redacted] (emphasis added.

50. Dr. Beyer modified his "lower bound" number in his supplemental report. See St. of Facts, ¶ 37, *supra*.

51. Specifically, Dr. Beyer [redacted] *See id.* [redacted]

52. [redacted] *Id.* at ¶¶ 13-14.

K. OTHER FACTS

53. Life's expert Dr. Tomlin explained that "the largest customer (in terms of purchases) on Dr. Beyer's list of infringing customers in the 'medical, cancer, or diagnostic research center' category is the Institute of Environmental Science and Research." Wikstrom Decl., Ex. C (Tomlin Report) at ¶ 29. "[T]he website for the Institute of Environmental Science and Research explains that it 'is the sole forensic science provider to the New Zealand Police and manager of the criminal National DNA Databank.'" *Id.*

III. ARGUMENT

A. APPLICABLE LEGAL STANDARDS

"The admission of expert testimony is governed by Federal Rule of Evidence 702 and the principles outlined in *Daubert*." *Bielskis v. Louisville Ladder, Inc.*, No. 10-1194, 2011 U.S. App. LEXIS 23089, at *11 (7th Cir. Nov. 18, 2011) (citing Fed. R. Evid. 702; *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993); *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 147-49

(1999) (extending application of *Daubert* factors to non-scientific experts)). "Under Federal Rule of Evidence 702 and *Daubert*, the district court must engage in a three-step analysis before admitting expert testimony," which consists of determining "[1] whether the witness is qualified; [2] whether the expert's methodology is scientifically reliable; and [3] whether the testimony will assist the trier of fact to understand the evidence or to determine a fact in issue." *Myers v. Ill. Cent. R.R. Co.*, 629 F.3d 639, 644 (7th Cir. 2010) (citation omitted); *see also Bielskis v. Louisville Ladder, Inc.*, No. 10-1194, 2011 U.S. App. LEXIS 23089, at *11 (7th Cir. Nov. 18, 2011). "The proponent of [an] expert bears the burden of demonstrating that the expert's testimony would satisfy the *Daubert* standard." *Lewis v. CitGo Petroleum Corp.*, 561 F.3d 698, 705 (7th Cir. 2009) (citing Fed. R. Evid. 702 advisory committee's note (2000 Amends.).

1. Is A Proffered Expert Qualified?

"The gatekeeping function that *Daubert* talks about is most pointedly at issue in a jury trial where a jury might be misled by an expert who doesn't have sufficient qualifications." *In re Salem*, 465 F.3d 767, 776-77 (7th Cir. 2006). Thus, an expert witness must be "qualified as an expert by knowledge, skill, experience, training, or education." Fed. R. Evid. 702.

When evaluating whether an expert is "qualified," the question is not whether an expert has impressive qualifications generally, but rather, whether he or she is specifically qualified in the particular field on which a challenged opinion is offered. *See Lewis v. CitGo Petroleum Corp.*, 561 F.3d 698, 706 (7th Cir. 2009) (affirming exclusion of an allergist from opining on whether exposure to hydrogen sulfide gas caused plaintiff's injuries where the purported expert "had no training or experience in toxicology or epidemiology . . . [and only] had treated one patient twelve years earlier who had experienced hydrogen sulfide exposure.") This Court has thus excluded opinions by a proffered expert with "extensive law enforcement experience" because the proffered testimony was not in law enforcement generally, but was rather "in ***the***

particular field of the care and observations of ill inmates in the jail setting," for which the proffered expert's "main source of knowledge regarding [that specialized subject] is the review of cases in which he has served as an expert." *Hessler v. County of St. Croix*, No. 08-cv-166-bbc, 2009 U.S. Dist. LEXIS 22738, at *2-5 (W.D. Wisc. Mar. 16, 2009).

In fact, expertise cannot even be established by supplementing impressive general credentials with a small amount of experience in the specific field at issue. *See Happel v. Walmart Stores, Inc.*, 602 F.3d 820, 825 (7th Cir. 2010) (finding that a doctor who was "board-certified in psychiatry (general and specialized areas such as pain management, addiction, and geriatric) and neurology, as well as an assistant professor in the neurology and psychiatry departments" was "was not qualified to testify about [an individual's] MS, the exacerbation of her MS, or other related physical ailments because he had very limited experience with MS patients"). Instead, an expert witness must have sufficient "knowledge, skill, experience, training, or education" in the particular field in which an opinion is offered. Fed. R. Evid. 702.

2. Is A Proffered Expert's Methodology Reliable?

In assessing an expert's methodology, the Court "must rule out subjective belief or unsupported speculation." *Deimer v. Cincinnati Sub-Zero Prods, Inc.*, 58 F.3d 341, 344 (7th Cir. 1995) (internal citations omitted); *Lewis v. CitGo Petroleum Corp.*, 561 F.3d 698, 706 (7th Cir. 2009). "[Q]ualifications alone do not suffice. A supremely qualified expert cannot waltz into the courtroom and render opinions unless those opinions are based on some recognized scientific method and are reliable and relevant under the test set forth by the Supreme Court in *Daubert*." *Clark v. Takata Corp.*, 192 F.3d 750, 759 n.5 (7th Cir. 1999); *Lewis*, 561 F.3d at 705 (citation omitted). Indeed, "[a]n opinion without foundation is inadmissible." *The First Years, Inc. v. Munchkin, Inc.*, 575 F. Supp. 2d 984, 995 (W.D. Wisc. 2008) (citing *General Electric Co. v. Joiner*, 522 U.S. 136, 146 (1997) ("nothing in either *Daubert* or the Federal Rules of Evidence

requires a district court to admit opinion evidence that is connected to existing data only by the ipse dixit of the expert")).

Rule 702 directs that "[i]f the witness is relying solely or primarily on experience, then the witness must explain how that experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and ***how that experience is reliably applied to the facts***." Fed. R. Evid. 702, Advisory Committee Notes (emphasis added) (quotations and citation omitted). Indeed, "[t]he trial court's gatekeeping function requires more than simply taking the expert's word for it." *Id.* Thus, the Court considers whether the proffered expert's theory can be and has been tested; whether the theory has been subjected to peer-review and publication; and whether the theory has been "generally accepted" in the scientific community. *Ervin*, 492 F.3d at 904 (citing *Daubert*, 509 U.S. at 593-94); *Schmude*, 550 F. Supp. 2d at 851.

Notably, the Seventh Circuit has upheld exclusion of expert testimony where the proffered testimony was "merely subjective opinion, lacking any scientific methodology," because the expert "failed to substantiate his opinion on the basis of any scientific research," but only "proffered unverified statements that were unsupported by any scientific method." *Deimer v. Cincinnati Sub-Zero Prods, Inc.*, 58 F.3d 341, 343-44 (7th Cir. 1995). This is because "this type of unsubstantiated testimony plainly provides no basis for relaxing the usual first-hand knowledge requirement of the Federal Rules of Evidence on the ground that the expert's opinion has a reliable basis in knowledge and experience of his discipline." *Id.* at 344.

3. Will The Proffered Expert's Testimony Assist The Trier Of Fact To Understand The Evidence Or To Determine A Fact In Issue?

"[O]ne major determinant of whether an expert should be excluded under *Daubert* is whether he has justified the application of a general theory to the facts of the case." *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1316 (Fed. Cir. 2011) (emphasis added). Indeed, expert

testimony is only admissible if it "would assist the trier of fact to understand the evidence or determine a fact at issue in a case." *Lewis v. CitGo Petroleum Corp.*, 561 F.3d 698, 705 (7th Cir. 2009) (citing See Fed. R. Evid. 702; *Daubert*, 509 U.S. at 589-91).

"Similarly, the Federal Circuit excludes expert testimony regarding patent damages where an expert's approach fails to associate the expert's theory to the facts of the case." *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1317-18 (Fed. Cir. 2011) ("In short, Gemini's starting point of a 25 percent royalty had no relation to the facts of the case, and as such, was arbitrary, unreliable, and irrelevant. The use of such a rule fails to pass muster under *Daubert* and taints the jury's damages calculation."). "An expert's opinions must be based on the evidence in the case, and, if he bases his opinions on empirical assumptions, those assumptions must be supported by evidence." *In re Ready-Mixed Concrete Antitrust Litig.*, 261 F.R.D. 154, 163-64 (S.D. Ind. 2009); *Elcock v. Kmart Corp.*, 233 F.3d 734, 756 (3d Cir. 2000) (reversing district court's admission of expert economic damages testimony relying on empirical assumptions unsupported by the record).

B. DR. BEYER SHOULD BE PRECLUDED FROM OPINING REGARDING THE "QUANTUM OF AB'S INFRINGING SALES"

Dr. Beyer makes multiple attempts – none of which he claims are actually correct – to estimate the amount of AmpFℓSTR® Kits that have been used by AB's customers in fields outside the scope of the 2006 Cross-License as determined by the Court's November 29, 2011 Opinion and Order. Dr. Beyer is not qualified in this area, for a variety of reasons. It is thus not surprising that the various methods he applies are unreliable, and that his resulting "estimates" would not assist the jury in this matter. The Court should exercise its gatekeeping function and exclude Dr. Beyer's unqualified, unreliable, and unhelpful opinions on this topic. *See Myers*, 629 F.3d 639 at 644 ("Under Federal Rule of Evidence 702 and *Daubert*, the district court must

engage in a three-step analysis [of a proffered expert's qualifications, methodology, and assistance to the trier of fact] before admitting expert testimony.").

1. Dr. Beyer Is Not Qualified To Testify On The "Quantum of AB's Infringing Sales."

Dr. Beyer opines regarding what he calls the "quantum of AB's infringing sales," assessing how AB customers use AmpFℓSTR® Kits and whether each of those uses would be in fields that are outside the scope of the 2006 Cross-License as determined by the Court's November 29, 2011 Opinion and Order. These opinions regarding which of the listed customers used AmpFℓSTR® Kits for chimerism in the context of bone marrow transplant monitoring, cell line authentication, classifying molar specimens, and determinations of fetal sex, and on what percentage of each customer's use fell within this list are based essentially only on a list of AmpFℓSTR® Kits customer names.

This opinion requires expertise in three areas: the businesses of Life's customers, the science of STRs, and the legal interpretation of contracts and patents. An expert lacking experience in even one of these three areas would be unqualified to formulate or offer the opinions that Dr. Beyer has offered regarding the "quantum of AB's infringing sales." But Dr. Beyer lacks experience in not only one but in all three of these necessary areas. Dr. Beyer should thus be precluded from opining on this topic. *See* Fed. R. Evid. 702; *Lewis*, 561 F.3d at 706 (proffered expert must be specifically qualified in the particular field on which a challenged opinion is offered). If Dr. Beyer is allowed to testify on these topics, the "jury might be misled by an expert who doesn't have sufficient qualifications." *In re Salem*, 465 F.3d at 776-77.

(a) Dr. Beyer is not qualified to testify based on Life's customers' businesses or how and why they use STR kits.

Dr. Beyer offers expert opinions regarding the businesses and other activities, operations, and needs of Life's customers. Most notably, he opines on "the field of use or application of

defendants' products" by Life's customers in the course of their business and other activities, which he then uses as a base for his damages calculations for both lost profits and reasonably royalty. St. of Facts, ¶ 24. Each of these opinions requires an understanding of the business and other activities of Life' customers – *e.g.,* how various laboratories and other entities use STR kits to, in turn, serve their clients, customers, or other needs. Dr. Beyer is not qualified to give expert testimony "in the particular field" of any these opinions. *See* Fed. R. Evid. 702; *Lewis*, 561 F.3d at 706; *see also Hessler*, 2009 U.S. Dist. LEXIS 22738, at *2-3, *5.

Dr. Beyer has no experience in how and why various entities use STRs or STR-based products. Indeed, he admits that [redacted]. St. of Facts, ¶¶ 9, 14. Dr. Beyer has no knowledge, skill, experience, training, or education regarding how STRs or STR-based products are used by the various customers who purchased STR kits from Life, how STRs or STR-based products figure in the operation of their businesses and other activities, or more generally regarding the businesses and activities of universities, hospitals, forensic, research and clinical laboratories, and other customers who purchased STR kits from Life.

However, Dr. Beyer's proffered opinion regarding the "quantum of AB's infringing sales" requires expertize in exactly this specialized area. *Id.* at ¶ 17. Determination of customer uses of STR kits requires knowledge of the business of STR kits and their uses by Life's customers. For example, a given laboratory or other entity might use STR kits solely for forensics or paternity or for a mix of forensics, paternity, and other applications that might be considered outside the scope of the 2006 Cross-License, and the existence and extent of such uses depends on the needs of the clients that are served by that laboratory or entity. Thus, determining (or even estimating) the various applications for which a given laboratory or other

entity might use STRs and STR kits, and the relative proportion of each application, requires knowledge, training, or experience in the business in which a customer engages. Because Dr. Beyer lacks any experience in this specific field, he should be precluded from testifying on which customers' uses of STR kits were within fields that are outside the scope of the 2006 Cross-License as determined by the Court, or the relative proportion of their use was in fields that are outside the scope of the 2006 Cross-License as determined by the Court.

For each of Dr. Beyer's three estimates for the "quantum of AB's infringing sales" he rendered two opinions relating to the business and other activities of Life's customers, neither of which is he qualified to make. First, he opined regarding the type of institution each customer is. St. of Facts, ¶ 20. Dr. Beyer based these conclusions either solely on a customer's name or on an "application agnostic" database. *Id.* Specifically, calculation of each of Dr. Beyer's upper and lower bound estimates both begin by inferring an "institution type" based on each customer's name. *Id.* at ¶¶ 20, 29, 35. [redacted] *Id.* at ¶¶ 20, 32. However, if he could not find what he considered to be an answer there, he would proceed to guess. *Id.* at ¶ 20. Dr. Beyer has no experience that qualifies him to give expert testimony regarding a connection, if any, between STR kit customer names and any sort of "institution type," much less to opine regarding the institution type based on nothing more than his own intuition or guesswork.

Second, after Dr. Beyer picked institution types for different customers, he then offered his opinion regarding the percentage of STR kit use for each of his assigned institution types that is in fields which are outside of the scope of the 2006 Cross-License. [redacted]

[redacted] St. of Facts, ¶ 21. For example, his "upper bound" "estimate" is based on an opinion that for all institutions that do not meet his assumed criteria, 100% of the customer's use would be in fields that are outside the scope of the licensed fields. *Id.* at ¶ 20. His "lower bound" "estimate," is based on an estimate that 85% of uses by non-U.S. universities, 95% of uses by U.S. universities, and 95% of uses by medical, cancer, or diagnostic research centers would be in fields that are outside the scope of the license. *Id.* at ¶ 22. His alternate estimate is based both the same assumptions as the "lower bound." *Id.*

Dr. Beyer's only inputs for the percentages of customer uses in fields that are outside the scope of the 2006 Cross-License are the generalizations of Dr. Dimond and conversations between Dr. Beyer's staff and Life employees. *Id.* at ¶ 23. But he does not take what either Dr. Dimond or Life employees said as a premise. *Id.* Rather, he indicates that those conversations were only a factor in formulating his own opinions. *Id.* Dr. Beyer is not "qualified as an expert by knowledge, skill, experience, training, or education" to render those opinions. *See* Fed. R. Evid. 702. He is not qualified him give expert testimony about the percentage of use of STR kits in the fields that the Court has determined to be outside the scope of the 2006 cross license based on either an asserted "institution type" or on the name of the customer. Accordingly, Dr. Beyer is not qualified to opine on the "quantum of AB's infringing sales" and he should be precluded from doing so. *See* Fed. R. Evid. 702; *Lewis*, 561 F.3d at 706; *see also Hessler*, 2009 U.S. Dist. LEXIS 22738, at *2-3, *5.

(b) Dr. Beyer is not qualified to testify based on the science underlying the patents at issue.

Dr. Beyer's opinion regarding the "quantum of AB's infringing sales" requires experience in the specialized field of science relating to STRs. Dr. Beyer lacks even "very limited experience" in this area and so is not qualified to testify on this topic. *See Happel*, 602

F.3d at 825 (affirming exclusion of a proffered expert who had only "very limited experience" in the specific topic of the opinion.)

Dr. Beyer lacks any qualifications regarding the science or technology underlying many issues in this case. Neither his report, his supplemental report, nor his submitted CV list any "knowledge, skill, experience, training, or education," in any biological field, as would be required to opine about biological sciences in general under Federal Rule of Evidence 702. Dr. Beyer volunteered during deposition that [redacted] St. of Facts, ¶ 9. That alone shows that he is not qualified as an expert any scientific or technological issues in this case. But he has further shown that he is utterly lacking in any familiarity with the specific subfield of technology in this case. He testified that [redacted] *Id.*

Yet in spite of his repeated admissions about [redacted] he proffers expert testimony on whether customer use falls within the scope of fields of use in the 2006 Cross-License as determined in the Court's November 29, 2011 Opinion and Order. St. of Facts, ¶¶ 13, 21-23, 25. But such an opinion requires a determination regarding whether a given use was for any of (1) chimerism in the context of bone marrow transplant monitoring, (2) cell line authentication, (3) classifying molar specimens, or (4) determinations of fetal sex (*i.e.*, fields that would be outside the scope) ***as opposed to*** (5)

forensics or (6) paternity. Dr. Beyer has not shown that he has the background to properly identify which of these fields describes any particular customer use.

Dr. Beyer lacks any knowledge, skill, experience, training, or education whatsoever regarding molecular biology, much less any expertise regarding the specialized fields of STRs, STR-based products, chimerism in the context of bone marrow transplant monitoring, cell line authentication, classifying molar specimens, determinations of fetal sex, forensic science, or paternity determination. *Id.* at ¶ 9, 14. As such, he is unqualified to opine about "the quantum of infirming use" which necessarily includes an opinion regarding whether particular customer uses were in the fields of chimerism in the context of bone marrow transplant monitoring, cell line authentication, classifying molar specimens, or determinations of fetal sex ***as opposed to*** forensics or paternity (*i.e.,* whether uses were within the scope of the 2006 Cross-License). He should be excluded from doing so. Dr. Beyer lacks "knowledge, skill, experience, training, or education," with biology in general, and with STRs and STR kits specifically. Fed. R. Evid. 702. The Court should preclude Dr. Beyer from testifying regarding equivalence of Life and Promega STR kits, the existence of non-infringing alternatives, whether a given use of an STR kit is within the scope of the 2006 Cross-License, and any other opinions based on the science of STR kits. *See* Fed. R. Evid. 702; *Lewis*, 561 F.3d at 706; *see also Hessler*, 2009 U.S. Dist. LEXIS 22738, at *2-3, *5.

(c) Dr. Beyer is not qualified to testify about the interpretation of the 2006 Cross-License or the asserted patents.

Opinions about whether kit customer use falls in fields that are outside the scope of the 2006 License Agreement as determined by the Court's November 29, 2011 Opinion and Order also require experience interpreting licenses and patents. Dr. Beyer admits he is not qualified

from offering opinions in these areas, and so should be precluded from opining on topics that rely on these areas such as his "quantum of AB's infringing sales."

Dr. Beyer also does he have any experience in licensing, contract interpretation, analysis of patent infringement, federal and state regulation of diagnostic products, or general law or legal principles. Dr. Beyer even admits that [redacted] St. of Facts, ¶ 16. Dr. Beyer explicitly recognized that [redacted] *Id.*

Nonetheless, Dr. Beyer opines on whether particular uses of STR kits are within the scope of the 2006 Cross-License (*e.g.*, whether particular customer uses are within the scope of the forensics or paternity fields), and bases his estimated "quantum of AB's infringing sales" on these opinions. *See id.* at ¶ 17, 21, 23, 25-27. Dr. Beyer admits that he took on the task of making "informed assumptions of the proportion of infringing and non-infringing applications," based on his opinion of whether different uses fell within the scope of the 2006 ABI cross license. *Id.* at 28. As one particular example, the parties disagree over whether forensic training and research to develop population databases and forensic techniques fall within the scope of the 2006 Cross-License as determined by this Court. However, Dr. Beyer opined tha[redacted] *Id.* at ¶¶ 40-41. Dr. Beyer even testified that upon his reading of the 2006 Cross-License, [redacted] *Id.* at ¶ 41. Dr. Beyer has no knowledge, skill, experience, training,

or education in "in the particular field" of contract interpretation and so on this basis alone should be precluded from opining on interpretation of the 2006 Cross-License, and thus on whether uses are within the scope of the 2006 Cross-License. *Hessler*, 2009 U.S. Dist. LEXIS 22738, at *2-3, *5.

2. Dr. Beyer Applies Unreliable Methodologies To Calculate "The Quantum of AB's Infringing Sales."

Dr. Beyer made three attempts to estimate his "quantum of AB's infringing sales." But none of his attempts apply scientifically sound methodologies, and he himself admits that none of his resulting "estimates" reflects an actual number. Dr. Beyer does not disclose key parts of his methodologies for "estimating" the proffered opinions regarding the "quantum of AB's infringing sales." St. of Facts, ¶¶ 29, 30, 32. Further, the pieces of his methodology that he does disclose reveal and approach that is guesswork and speculation rather than any reliable methodology. Dr. Beyer relied solely upon his intuition about Life's customers and Life's sales database, while admitting that the database contains no information as to the use or application of the purchaser, and that he does not expect any of his three possible estimations of the "quantum of AB's infringing sales" to represent the actual amount of customer use in fields that are outside the scope of the 2006 Cross-License as determined by the Court's November 29, 2011 Opinion and Order.

All three of Dr. Beyer's estimates, as well as subsequent opinions in his supplemental report, share the same methodological flaws and should be excluded. This unreliable methodology independently directs that this Court exclude any testimony by Dr. Beyer regarding the "quantum of AB's infringing sales." *See Deimer*, 58 F.3d at 343-44 (upholding exclusion were a proffered expert "failed to substantiate his opinion on the basis of any scientific research," but only "proffered unverified statements that were unsupported by any scientific method.")

Fed. R. Evid. 702, Advisory Committee Notes ("If the witness is relying solely or primarily on experience, then the witness must explain how that experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts.") (emphasis added) (quotations and citation omitted).

(a) Dr. Beyer uses a flawed methodology to derive an "upper bound" estimate.

First, the methodology that Dr. Beyer used to create his "upper bound" "estimate" is flawed. He began this estimate by taking a database Life maintained that included all sales of AmpFℓSTR® Kits. St. of Facts, ¶¶ 19, 25. But as Dr. Beyer admits, some customer uses of AmpFℓSTR® Kits are within the scope of the 2006 Cross-License as determined by this Court's November 29, 2011 Opinion and Order. *See id.* at ¶ 24. He created his "upper bound" by taking ***all*** STR kit customers in Life's database, and then excluding several poorly defined categories of customers, who he alleges "are identified as using STR kits for only non-infringing uses." *Id.* at ¶ 29. But he does not disclose his methodology for identifying customers to exclude. He stated only [redacted] *Id.*

As the first step in his subtraction of the institutions he could identify as "clearly forensic or paternity," he attempted to exclude customers with "names containing character strings ***like*** police, forensics, crime," but provided neither the names of excluded customers, nor the methodology he used to determine if their names were "like" his identified search words. *Id.*

Likewise, while Dr. Beyer explains that he excluded "customers that are government entities, ***other than those that might*** be engaging in uses in fields that the Court has rules are outside the scope of the 2006 Cross-License (such as government hospitals, laboratories, public universities, and departments of health)" and "[c]ustomers common to Promega and AB who are

identified in Promega's data with" a particular type of identification, he does not identify who these customers are. *Id.* Nor could he explain or recall what methodology he followed in [redacted] *Id.* at ¶ 30.

Next, Dr. Beyer [redacted] *Id.* at ¶ 31. [redacted] *Id.* [redacted] *Id.* [redacted] *Id.* at ¶ 32. However, he did not disclose, and testified that [redacted] *Id.* at ¶ 32.

At that point, all sales for any customer who had not been excluded were included in the "upper bound" estimate, which includes [redacted] *Id.* at ¶ 33. The methodology Dr. Beyer used to derive is "upper bound" is based on speculation, not an established scientific method. Dr. Beyer does not even claim that this methodology has been tested, subjected to peer review or generally accepted is accepted or peer reviewed in any

industry, the accepted indicators of reliability. *See Ervin*, 492 F.3d at 904 (citing *Daubert*, 509 U.S. at 593-94). In short, there is no indication that Dr. Beyer's methodology for his "upper bound" estimate is reliable. It should be excluded. *Deimer v. Cincinnati Sub-Zero Prods, Inc.*, 58 F.3d 341, 343-44 (7th Cir. 1995) (upholding exclusion were a proffered expert "failed to substantiate his opinion on the basis of any scientific research," but only "proffered unverified statements that were unsupported by any scientific method.")

(b) Dr. Beyer uses a flawed methodology to derive a "lower bound" estimate.

Dr. Beyer's calculation of the "lower bound" similarly included two steps, both of which are unduly speculative and unreliable. His first step in creating his "lower bound" was to [redacted] St. of Facts, ¶ 35. He provided no information about how he decided a customer was a "medical, cancer, or diagnostic research center." *Id.* He then relied on the "Customer Segment Name," in the electronic sales database with no explanation of why the Customer Segment Name information correlates at all with customer uses (much less that it necessarily or reliably correlates) or otherwise how and why his reliance on the Customer Segment Name was an acceptable or reliable methodology. He inexplicably chose to [redacted] *Id.*

His next step, the assignment of arbitrary percentages of purchases in various categories that would be in fields that are outside the scope of the 2006 Cross-License is not explained, nor does he give any methodology for how he derived these numbers, which are not provided in the Dimond Report and were instead entirely a creation of Dr. Beyer's. *Id.* at ¶ 36. While he claims he made a judgment based on his experience, he gave no indication of how his "experience leads

to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts." Fed. R. Evid. 702, Advisory Committee Notes (quotations and citation omitted).

Moreover, to the extent he based his analysis at all on the Dimond Report for determination of the "quantum of AB's infringing sales," such reliance is improper. As described in the Motion to Preclude Testimony of Dr. Randall Dimond, Dr. Dimond did not use a reliable methodology in reaching his partial conclusions. Further, Dr. Dimond doesn't know the identity of AB's customers or their uses. St. of Facts, ¶ 11. Dr. Dimond only speculates as to his expectations about how various entity types might use kits. *Id.*

Not only is Dr. Beyer's disclosed methodology pure guesswork, but the evidence in the case shows that Dr. Beyer's flawed methodology led him to an incorrect conclusion. As Dr. Tomlin noted "the largest customer (in terms of purchases) on Dr. Beyer's list of infringing customers in the 'medical, cancer, or diagnostic research center' category is the Institute of Environmental Science and Research." *Id.* at ¶ 53. However, "the website for the Institute of Environmental Science and Research explains that it 'is the sole forensic science provider to the New Zealand Police and manager of the criminal National DNA Databank.'" *Id.* This example shows that Dr. Beyer's flawed methodology has led to an incorrect result that customers including Institute of Environmental Science and Research would use STR kits in fields that the Court has ruled are outside of 2006 Cross-License, for 95% of their STR kit usage. Furthermore, while Dr. Beyer claims [redacted] *Id.* at ¶ 52. Furthermore, he inexplicably left these same institutions in his upper

bound figure. Accordingly, Dr. Beyer's opinion on this "estimate" is unreliable and should be precluded.

(c) Dr. Beyer uses a flawed methodology to derive an "alternate" estimate.

Dr. Beyer's methodology for his proposed "alternate estimate" for the "quantum of AB's infringing sales" was no more reliable than the methodologies he used for his "upper" and "lower" bounds. This estimate compounds the flaws of his earlier speculative "lower bound" value rather than correcting them because he merely takes the quantity he calculated as the "lower bound" and adds a second estimated number to it. [redacted] *Id.* This is flawed. As Dr. Beyer recognized elsewhere in his report, [redacted] *Id.*, ¶ 38. Therefore, it is not reasonably certain and cannot be relied upon.[4]

All three of Dr. Beyer's estimates of the "quantum of AB's infringing sales" should be excluded because he provides no foundation for his estimates, and "[a]n opinion without foundation is inadmissible." *The First Years, Inc. v. Munchkin, Inc.*, 575 F. Supp. 2d 984, 995 (W.D. Wisc. 2008). For these reasons, Dr. Beyer's opinion on the "quantum of AB's infringing sales" should be excluded because none of Dr. Beyer's three estimates "rise above subjective belief or unsupported speculation." *Target Market Publishing, Inc., v. Advo, Inc.*, 136 F.3d 1139, 1143 (7th Cir. 1998) (citing *General Electric Co. v. Joiner*, 118 S. Ct. 512, 516; *Minasian v. Standard Chartered Bank, PLC*, 109 F.3d 1212, 1216 (7th Cir. 1997); *Lester v. Resolution Trust Corp.*, 994 F.2d 1247, 1252-1253 (7th Cir. 1993)).

[4] Dr. Beyer's claimed [redacted] He never explains how his methodology accurately reflects the customer identity or use.

3. Dr. Beyer's Opinions On "The Quantum of AB's Infringing Sales" Do Not Assist The Jury.

Because each of Dr. Beyer's three estimates of customer use in fields that are outside of the scope of the 2006 Cross-License as determined by the Court are divorced from the facts of the case, these estimates would not assist the jury in understanding the actual facts of the case. The Federal Circuit has rejected a plaintiff's attempt to prove entitlement to loss profits by extrapolating store space used to display the accused product, and then "multiplied the estimated square footage by the number of stores," because this calculation was "fraught with speculation. . . . Instead of presenting evidence of actual sales combined with reliable economic analysis of demand, supply, and price over time, [the plaintiff] invites the jury to engage in rapt speculation."). *See Oiness v. Walgreen Co.*, 88 F.3d 1025, 1030-31 (Fed. Cir. 1996). Likewise, here Dr. Beyer's opinions do not assist the trier of fact in developing an understanding of damages that is any less "fraught with speculation," than the one the Federal Circuit rejected in *Oiness*.

Dr. Beyer's report and testimony are replete with examples of such speculation. He admits that [redacted] of Facts, ¶ 49. Without identification of the erroneously included customers, there is no way to correct it. In sum, Dr. Beyer's "upper bound" number is useless to the trier of fact because Dr. Beyer himself recognizes it is too high, but provides no specific information by which Dr. Beyer or anyone else could determine how excessively high it is. In sum, Dr. Beyer's "upper bound" number is useless to the trier of fact because Dr. Beyer himself recognizes it is too high, but provides no

specific information by which Dr. Beyer or anyone else could determine how excessively high it is.

With respect to his "lower bound" estimate, Dr. Beyer similarly admits that he [redacted] *Id.* at ¶ 35. His "alternate estimate" will not assist the jury as it is based entirely on the lower bound. As such, Dr. Beyer should be precluded from testifying regarding the amount of customer use in fields outside the scope of the 2006 Cross-License as determined by the Court. *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1316 (Fed. Cir. 2011) ("[O]ne major determinant of whether an expert should be excluded under *Daubert* is whether he has justified the application of a general theory to the facts of the case.").

C. DR. BEYER SHOULD BE PRECLUDED FROM OPINING REGARDING INTERCHANGEABILITY OF LIFE AND PROMEGA PRODUCTS

1. Dr. Beyer Is Not Qualified In The Underlying Fields Of Science, Business, Or Legal Interpretation.

As discussed above, Dr. Beyer lacks any previous experience related to STR kits. *See supra* Section B.4. But he nevertheless offers an opinion regarding equivalence of Promega and Life STR products, which requires exactly the specialized knowledge, skill, experience, training, or education in specialized fields of science, business, and use of STR kits that Dr. Beyer lacks. This opinion should therefore be excluded.

First, it would take scientific expertise to consider the possible technical solutions that may meet the customer needs for applications that are outside of the scope of the 2006 Cross-License as determined by the Court's November 29, 2011 Opinion and Order. For example, Dr. Beyer does not discuss whether there are technical options for these applications other than STR or whether there are STR solutions for these applications which do not fall under the scope of the

Promega Patents, much less analyze how these questions might differ for the different applications. This is particularly the case when [redacted] St. of Facts, ¶ 41.

Next, Dr. Beyer offers opinions regarding the equivalence of STR kits sold by Life and Promega. For example, he offers opinions such as "Promega manufactured, marketed and sold STR kits that are comparable to AB's infringing products," and "Promega's PowerPlex 16 system is the product most commonly used as the Promega equivalent due to its popularity and the continuity of its availability during the infringement period." *Id.* at ¶ 42. [redacted] *Id.* at ¶ 43. Such opinions require an understanding of the technical requirements of a given application (such as chimerism in the context of bone marrow transplant monitoring), an understanding of the technical features of different STR kits that may or may not meet the needs of a given application, as well as any other technical aspect of an STR kit that may impact a customer's experience with that kit. Dr. Beyer does not address any of these topics, which is not surprising as he has no "knowledge, skill, experience, training, or education," with STR kits, or the equivalence of different types of STR kits. The Court should preclude Dr. Beyer from testifying regarding equivalence of AB and Promega STR kits. *See* Fed. R. Evid. 702; *Lewis v. CitGo Petroleum Corp.*, 561 F.3d 698, 706 (7th Cir. 2009); *see also Hessler v. County of St. Croix*, No. 08-cv-166-bbc, 2009 U.S. Dist. LEXIS 22738, at *2-3, *5 (W.D. Wisc. Mar. 16, 2009).

Dr. Beyer has opined regarding interchangeability of Life's STR kits and Promega's STR kits. In addition to the required scientific foundation to this opinion, discussed *supra*, this opinion also requires expertise in the businesses of STR kit users. For example, Dr. Beyer offers

opinions such as "Promega manufactured, marketed and sold STR kits that are comparable to AB's infringing products," and "Promega's PowerPlex 16 system is the product most commonly used as the Promega equivalent due to its popularity and the continuity of its availability during the infringement period." St. of Facts, at ¶ 42. Yet, Dr. Beyer gives no indication that he has any experience with STR kit customers' businesses, and what actual products meet their needs, or even what factors would determine whether a particular kit could be used for particular applications.

Dr. Beyer's experience with the businesses of STR kit customers is less than "very limited" and so he should be precluded from opining regarding which STR kit products can meet different customer needs. *Happel v. Walmart Stores, Inc.*, 602 F.3d 820, 825 (7th Cir. 2010).

2. Dr. Beyer's Methodology is Unreliable.

Dr. Beyer applies a flawed methodology for his analysis of comparing Life's and Promega's products. His analysis is based entirely on numbers suggesting technical interchangeability provided in the Dimond report. He ignores any factors other than scientific ones. St. of Facts, ¶ 44. For example, he ignores any regulatory or license limitations that could impact that interchangeability of the products. *Id.* Dr. Beyer's methodology does not "rise above subjective belief or unsupported speculation," and his resulting testimony should be excluded. *Target Market Publishing, Inc., v. Advo, Inc.*, 136 F.3d 1139, 1143 (7th Cir. 1998)

D. DR. BEYER SHOULD BE PRECLUDED FROM OPINION RE NON-INFRINGING SUBSTITUTES

1. Dr. Beyer Is Not Qualified In The Underlying Fields Of Science, Business, Or Legal Interpretation.

Dr. Beyer lack of previous experience in the business and science underlying STR kits similarly requires exclusion of his opinion regarding whether there could have been other

products that met the customer needs for the sales-at-issue which did not infringe the Promega patents.

Dr. Beyer opines that in the absence of the sales-at-issue, "there would have been no acceptable non-infringing substitutes for Promega's products." St. of Facts, ¶¶ 45-46. Dr. Beyer is not qualified to offer that opinion because he lacks any knowledge, skill, experience, training, or education in the relevant patent law principles. His opinion involves the application of a specific doctrine of patent damages law to the facts of this case (*e.g.*, the legal requirements for determining whether an alternative is "acceptable" or whether an alternative "infringes"). Dr. Beyer does not explain his understanding of that law, and does not rely on any assumptions about that law. Instead, he merely asserts that "there would have been no acceptable non-infringing substitutes for Promega's products," that "Promega controls several patents essential for non-infringing production and sale of STR kits," and that "[i]n the human clinical research and human diagnostics applications, there were no other non-infringing suppliers of STR kits besides Promega." *Id.* Dr. Beyer's opinions regarding acceptable non-infringing alternatives are nothing more than bare legal conclusion made by a layperson. Because Dr. Beyer has "no training or experience" interpreting legal issues, his opinions on acceptable non-infringing alternatives should be excluded. *See Lewis v. CitGo Petroleum Corp.*, 561 F.3d 698, 706 (7th Cir. 2009).

2. Dr. Beyer's Methodology is Unreliable.

Similarly, Dr. Beyer applies an unreliable methodology to his analysis for non-infringing substitutes. Specifically, Dr. Beyer does not even discuss whether or not Life was capable of selling any non-infringing alternatives, but instead bases his conclusion solely on Promega's alleged reluctance to license the patents-at-issue. St. of Facts, at ¶ 45. Similarly, in his deposition Dr. Beyer based his belief that there were no non-infringing alternatives [redacted]

[redacted] without any consideration of whether Life had or could have had any non-infringing alternatives to meet some or all of the customer demand for STR kits. *Id.* But this utterly ignores whether Life itself would have been able to implement any non-infringing alternatives to meet some or all of the customer demand for STR kits. *Id.* at ¶¶ 45-46. Beyer is not qualified to opine on whether Life had alternatives that would not have infringed the patents at issue.

E. OTHER OPINIONS THAT SHOULD BE EXCLUDED

1. Dr. Beyer Should Be Precluded From Opining Regarding Promega's Manufacturing Capacity For STR Kits.

Dr. Beyer further opines that Promega had the manufacturing capacity to triple its output of STR kits. *Id.* at ¶ 47. But because of Dr. Beyer's admitted lack of experience in the business of STR's, he is not qualified to opine on this topic. For example, Dr. Beyer has not shown that he is qualified to assess what specialized equipment is required to produce STR kits, nor whether any such specialized equipment could be used on tripled production scale. Nor has Dr. Beyer shown that he is qualified to understand what skilled (or even unskilled) labor is involved in production of STR kits, let alone whether the workforce Promega currently has would be able to meet the needs of a tripled production.

2. Dr. Beyer Should Be Precluded From Opining Regarding Demand For Promega's Products.

Dr. Beyer offers an opinion regarding demand for Promega's products and entry of an injunction. *Id.* at ¶ 45. The methodology for this opinion is flawed. Dr. Beyer bases his opinion on various assumptions and does not consider all the factors that would impact whether demand for Defendants' products would have translated into demand for Promega's products. For example, Dr. Beyer does not discuss regulatory approvals, or the need to validate new products. In fact, to the contrary, Dr. Beyer testified that [redacted]

[redacted] *Id.* at ¶ 44. Dr. Beyer's methodology on validation that is used as a foundation for both lost profits and injunction is thus inherently unreliable and should be excluded. *General Electric Co. v. Joiner*, 522 U.S. 136, 146 (1997) ("nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the ipse dixit of the expert").

IV. CONCLUSION

In light of the foregoing, Defendants respectfully request that the Court preclude Dr. Beyer from offering expert testimony.

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